is furnished with two massive lateral jaws bearing sharp prominent dental processes on the anterior border, and with a pair of simple tentacula having a dark ocellus at the outer side of the base of each. A well-formed foot arises by a narrow pedicle from the under surface of the body, immediately behind the ciliated collar. The creeping disc is elongated in form, subquadrate in front, and tapers off gradually towards the posterior extremity. The latter part, corresponding to the operculigerous lobe of other species, is speckled with little clusters of dark pigment-cells, disposed so much after the manner of those of the ciliated arms as to lead to the impression that it is one of the same series, or whorl of organs, to use botanical phraseology. A pectinate gill extends beneath the mantle, along the anterior third of the dorsal region, lying, as in most cases, in advance of the heart. The visceral mass of the body, though elongated, is but slightly curved upon itself, not exceeding half a turn. The lobules of the liver, distended with large amber-coloured oil-globules, may be distinctly seen through the transparent outer envelope and shell. Single spherical otolithes are contained in the acoustic sacs, and the lingual ribbon is lengthy and flexuous, presenting a row of uncini on each side, with a series of minute denticulations, pointing backwards on their anterior and posterior borders. The uncini of opposite sides interlock with one another so closely as to conceal the rudimentary segments of the rachis almost completely. The shell is cartilaginous, transparent, planorbicular, and perfectly symmetrical, presenting four rows of minute conical tuberculations on its convex or dorsal surface. The gyri of the involute nucleus are so curved as to leave a central perforation; the mouth of the tube encroaches considerably on the last whorl, and the outer lip is deeply notched between the two lateral rows of tubercles. The author has named the species *Jasonilla M^cLeayiana*. The paper is accompanied with illustrative figures.

V. Note "On the position of Aluminum in the Voltaic series." By Charles Wheatstone, Esq., F.R.S. Received April 25, 1855.

Having, through the kindness of Dr. Hofmann, been permitted to examine a specimen of aluminum prepared by M. Claire-Deville, I

availed myself of the opportunity to ascertain one of the physical properties of this extraordinary metal, which it does not appear has been yet determined, viz. its order in the voltaic series. The following are the results of my experiments.

Solution of potass acts more energetically and with a greater evolution of hydrogen gas upon aluminum than it does on zinc, cadmium or tin. In this liquid aluminum is negative to zinc, and positive to cadmium, tin, lead, iron, copper and platina. Employed as the positive metal, the most steady and energetic current is obtained when it is opposed to copper as the negative metal; all the other metals negative to it which were tried became rapidly polarized, whether above or below copper in the series.

In a solution of hydrochloric acid aluminum is negative to zinc and cadmium, and positive to all the other metals above named. With this liquid also copper opposed to it as the negative metal gave the strongest and most constant current.

Nitric and sulphuric acids are known not to act chemically in any sensible manner on aluminum. With the former acid diluted as the exciting liquid aluminum is negative to zinc, cadmium, tin, lead and iron. The current with zinc is strong; with the other metals very weak, and it is probable that their apparent negative condition is the result of polarization. When aluminum is immersed in dilute sulphuric acid, this metal appears negative to zinc, cadmium, tin and iron, but with lead, on which sulphuric acid has no action, the current is insensible. In both these liquids copper and platina are negative to aluminum, and notwithstanding the apparent absence of chemical action on the latter metal, weak currents are produced.

It is rather remarkable, that a metal, the atomic number of which is so small, and the specific gravity of which is so low, should occupy such a position in the electromotive scale as to be more negative than zinc in the series.

VI. "An Experimental Inquiry into the nature of the metamorphosis of Saccharine Matter, as a normal process of the animal economy." By Frederick W. Pavy, M.D. Lond. Communicated by G. O. Rees, M.D., F.R.S.

This paper was in part read.